

## Effects of type II pyrethroids on *Daphnia magna*: Dose and temperature dependences

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### Abstract

Environmental contamination with various insecticides remains an actual problem. In this connection, investigation of toxicologic hazard of insecticides is essential. In this work, effects of the type II pyrethroids (fenvalerate, cypermethrin and deltamethrin) on *Daphnia magna* were determined. It was found for the first time that not only low doses (up to  $10^{-12}$  M) of the above-mentioned chemicals but also extremely low doses (up to  $10^{-29}$  M) showed toxicological action on the invertebrates both at optimal ( $23 \pm 0.5^\circ\text{C}$ ) and increased ( $28 \pm 0.5^\circ\text{C}$ ) temperature. At higher temperature, toxic effects were more pronounced.

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### Keywords

*Daphnia magna*, Pyrethroid insecticides, Toxicity